

Claims

1. A process execution management system, the system comprising:

a controller system being accessible over a network to enable remote user access

5 to data managed by the controller system, including,

a data center component configured to include data required to execute a process by a processing resource that is in communication with the controller system;

10 a first user interface component instance for enabling a first user interface configured to provide an interface to a first copy of the data center component, the first user interface being configured to notify the data center component of a change to the first copy of the data center component; and

15 a second user interface component instance for enabling a second user interface configured to provide an interface to a second copy of the data center component, the second user interface being configured to notify the data center component of a change to the second copy of the data center component,

20 wherein the data center component is configured to issue updates including the changes to each of the first copy of the data center component and the second copy of the data center component to each of the first and second user interfaces to maintain synchronized data between the first and second user interfaces having access to the data center component.

2. A process execution management system of claim 1, wherein the data center component is configured to register with a registry service.

3. A process execution management system of claim 2, wherein each of the user interfaces obtains a copy of the data center component by communicating a request to the registry service.

4. A process execution management system of claim 2, wherein each of the user interfaces provides the registry service with a user interface identification.

5. A process execution management system of claim 2, wherein each of the user interfaces provides the registry service with a user interface address.

6. A process execution management system of claim 5, wherein the data center component implements a refresh command to update each of the copies of the data center component.

7. A process execution management system of claim 6, wherein the data center component maintains each of the user interface identifications and each of the user interface addresses in an active list.

8. A process execution management system of claim 6, wherein the data center component awaits receiving a refresh acknowledged command from each of the user interfaces.

9. A process execution management system of claim 7, wherein the data center component removes a user interface identification and a user interface address of the user interface failing to dispatch a refresh acknowledged command to the data center component.

10. A process execution management system of claim 6, wherein each of the user interfaces awaits receiving a refresh command for a predetermined period of time.

11. A process execution management system of claim 10, wherein each of the user interfaces re-registers with the data center component if the user interface has not received a refresh command upon the passage of the predetermined period of time has not been received.

12. A method for remotely accessing, scheduling, monitoring, and submitting a process, the method comprising:

launching a controller code, the controller code configured to include a data center and a user interface code;

registering the data center with a registry service;

initiating a first instance of a user interface component by the controller code;

maintaining a data center copy provided to a user interface synchronized with the data center if the data center has received a data change request from a user interface; and

monitoring an active status of the user interface if the data center has not received a data change request to the data center.

13. A method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 12, further comprising:

- initiating a second instance of a user interface component by the controller code;
- maintaining a data center copy provided to another user interface synchronized with the data center if the data center has received a data change request from a user interface.

14 A method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 12, wherein maintaining the data center copy synchronized with the data center includes,

- obtaining a copy of the data center by a user interface;
- initiating a different instance of user interface component by the controller code;
- registering the user interface with the data center; and
- updating the data center upon a modification to the data center copy.

15. A method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 14, wherein updating the data center upon the modification to the data center copy includes,

- receiving a request to modify the data center copy;

dispatching a refresh command to the user interface, the refresh command being configured to update the data center copy so as to maintain the data center copy synchronized with the data center; and

awaiting a receipt of a refresh acknowledged command from the user interface
5 for a predetermined period of time.

16. A method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 15, wherein the data center unregisters the user interface if a refresh acknowledged command has not been received from the user interface for the
10 predetermined period of time.

17. A method for remotely accessing, scheduling, monitoring, and submitting a process as recited in claim 16, wherein the user interface is configured to re-register with the data center if the data center copy of the user interface has not been refreshed
15 for a specific length of time.

18. A method for providing synchronized data to a plurality of remote user interfaces, the method comprising:

launching a controller code having a data center and a user interface code;
20 registering the data center with a registry service;
initiating a first user interface component;
providing a copy of the data center to one or more user interfaces upon receiving a request from the one or more user interfaces;

maintaining and updating a list of one or more active user interfaces, the list of one or more active user interfaces is configured to include a user interface identity and a user interface address for each of the one or more active user interfaces;

maintaining the data center copy and data center synchronized if a data change request is received from any of the one or more user interfaces; and

monitoring an active status of the one or more user interfaces if the data change request has not been received.

19. A method for providing synchronized data to a plurality of remote user interfaces as recited in claim 18, wherein maintaining the data center copy and data center code synchronized includes,

dispatching a refresh command to the one or more user interfaces;

awaiting for a previously determined period of time to receive a refresh acknowledged command from the one or more user interfaces; and

receiving the refresh acknowledged command from the one or more user interfaces.

20. A method for providing synchronized data to a plurality of remote user interfaces as recited in claim 19, the method further including,

deleting one or more user interfaces from the list of active one or more user interfaces if a refresh acknowledged command has not been received for the user interface.

21. A method for providing synchronized data to a plurality of remote user interfaces as recited in claim 20, the method further including,

receiving a re-register command from the user interface if the user interface has

5 not received a refresh command for a specific length of time.

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